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ABSTRACT

Virtually all previous research on the types of tasks that people attempt to accomplish has focused on deductively derived task typologies. This approach has resulted in fruitful research, but has restricted the range of activities considered to be accomplishments. The current study was designed to provide a formal, inductive description of the types of experiences people consider to be accomplishments. Self-reports of achievements were obtained from 601 persons (348 females and 253 males; age range 18 to 86) who represented a wide variety of occupations and lifestyles. Multidimensional scaling techniques were used to provide clusterings of their achievement experiences. The two dimensions used to describe the achievement experiences corresponded to a social-affiliative vs. agentic achievement dimension, and a dimension which reflected the extent to which status seeking and competitive standards were relevant to the accomplishment. (Author)

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A Multidimensional Scaling of Achievement Experiences

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Abstract

Virtually all previous research on the types of tasks that people attempt to accomplish has focused on deductively derived task typologies. This approach has resulted in fruitful research, but has restricted the range of activities considered to be accomplishments. The current study was designed to provide a formal, inductive description of the types of experiences people consider to be accomplishments. Self-reports of achievements were obtained from 601 persons (348 females and 253 males; age range 18 to 86) who represented a wide variety of occupations and lifestyles. Multidimensional scaling techniques were used to provide clusterings of their achievement experiences. The two dimensions used to describe the achievement experiences corresponded to a social-affiliative vs. agentic achievement dimension, and a dimension which reflected the extent to which status seeking and competitive standards were relevant to the accomplishment.

Paper presented at the 1984 meeting of the American Psychological Association, Toronto, Canada.

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A Multidimensional Scaling of Achievement Experiences

Virtually all previous research on the types of tasks that people attempt to accomplish has focused on deductively derived task typologies. These typologies have been defined by dimensions such as the difficulty level of the task (cf. Thomas, 1983), the stereotypic masculinity or femininity of the activity (Stein & Bailey, 1973), the agentic vs. communal nature of the achievement task (cf. Parsons & Goff, 1980), and the types of standards used to evaluate performance (cf. Kipnis, 1974; Veroff, 1977). These dimensions have resulted in fruitful research, but have also restricted the range of activities considered to be accomplishments.

Stein and Bailey (1973) admonished researchers to examine peoples' self-selected accomplishments. Researchers who have done this (e.g., Gaeddert, in press; Travis, Burnett-Doering, & Reid, 1982) have been rewarded by observing a wide range of activities that people considered to be accomplishments. The current study was designed to provide a formal, inductive description of the types of experiences considered to be accomplishments. Self-reports of achievements were obtained, and multidimensional scaling techniques were used to provide clusterings of achievement experiences.

Method

Subjects

Six-hundred-one people from several communities in Northern New York State participated in this study by responding to a questionnaire. Some of the participants were college students (64 females and 38 males); the remaining 499 participants (284 females and 215 males) ranged in age from 18 to 86 and represented a wide variety of non-college occupations and

lifestyles. All participants volunteered to respond to the questionnaire, and none were paid or given extra credit in their courses.

The Questionnaire

All participants responded to a six-page Life Situations Questionnaire which contained items regarding demographic information, the stressfulness of a variety of life events, and achievement experiences. Responses to the following question were used in the present study:

> Please think back over your life, and think of one experience in which you felt that you had accomplished something important to you. What did you accomplish?

Procedure

The Life Situations Questionnaires were distributed by female and male research assistants. Participants responded to the questionnaire in small groups (10-20 persons) or were given the questionnaire individually. In all cases, participants were informed of their right to discontinue participation at any time, were assured of the anonymity and confidentiality of their responses, and signed an informed consent form. Participants were given as much time as they needed to complete the questionnaire.

Categorization of Achievement Experiences

In order to use multidimensional scaling techniques on these data, the number of stimuli needed to be reduced. Thus, the 601 achievement experiences obtained using the Life Situations Questionnaire were coded into 25 categories. This was accomplished by having independent judges (the second author and two other researchers served as judges) sort the achievement experiences into 10 to 30 categories (the achievement experiences had been transcribed onto 3 X 5 cards to facilitate this procedure). The first author and the judges then met to review the

independent categorizations. Final categories were arrived at through a consensus of the three judges and the first author. Table 1 contains a list of the 25 achievement categories derived using this procedure.

Scaling

Twenty-two undergraduate students (3 males and 19 females) served as raters to provide data for the multidimensional scaling analyses. Raters used a nine-point Likert style scale to make similarity comparisons between each pair of achievement experiences. Raters also provided supplementary ratings for each category using a five point scale to indicate the extent to which accomplishments in each category could be described by each of 19 statements. The statements were combined to form six scales based on previous research on achievement goals and performance standards (Gaeddert, Noelting, & Littlefield, 1984). A social-affiliative scale contained three items such as "the goal of an accomplishment of this type would be to be a friendly person, or begin or maintain a personal relationship with another person." The agentic achievement scale consisted of three items such as "the goal of an accomplishment of this type would be to benefit the person and no one else." The inner directed scale was made up of four items (e.g., "a person who succeeded at an accomplishment of this type would feel good because the person accomplished a goal that he or she had set for him or herself"), and the other directed scale consisted of four items such as "a person who succeeded at an accomplishment of this type would feel good because other people would look up to him or her." Two items measured the masculinity or femininity of the accomplishments: "the accomplishment is masculine", and "the accomplishment is femininine."

All ratings were done in one session, and there were two random orders of presentation of the similarity comparisons and two random orders of

presentation of the categories for the supplementary ratings. Raters were given as much time as they needed to complete the similarity judgements and the supplementary ratings.

The multidimensional scaling analyses were done separately for two groups of judges in order to provide evidence of the stability of the dimensions (Kruskal & Wish 1978). The groups were composed of almost equal numbers of males and females, and equal numbers of judges who received each order of presentation.

Results

Twenty-two similarity matrices were used as input for two separate analyses (11 matrices per analysis). The SINDSCAL program (Pruzansky, 1975) was used to provide group stimulus and subjects' weights for interpretation. Each analysis was conducted identically.

Achievement Category Configurations

The SINDSCAL program was run to construct four, three, and two dimensional configurations for each analysis. These solutions accounted for 38%, 34%, and 27% of the variance in one analysis, and 40%, 34%, and 28% of the variance in the other analysis. The two dimensional solution was chosen for further analysis because it yielded a clearly interpretable dimensional space, and because of the strong consistency in results obtained in the two analyses. The correlations of stimulus weights for the two groups of judges were 0.92 for Dimension I, and 0.89 for Dimension II. Table 2 contains the stimulus weights for each achievement category, averaged across the two groups.

Dimension I was characterized by high weights for achievement categories such as Financial Security (e.g., acquiring savings), Educational Attainment (e.g., obtaining a baccalaureate degree), and Job Attainment (obtaining a desired job). Low weights for categories such as

Provided Emotional Support (caring, nurturant, or understanding) and Interpersonal Relationships (creating or maintaining interpersonal relationships) also charaterized Dimension I. The scales based on supplementary ratings were used in regression analyses to aid in the interpretation of the dimensions. Table 3 contains a summary of these analyses. High beta weights were obtained for Dimension I when regressed on the agentic and social-affiliative scales. Dimension I appears to describe social-affiliative vs. agentically oriented accomplishments.

Dimension II was mainly defined by Parenting (provided emotional or financial support for a child), Children (gave birth), and Marriage (got married, had a happy marriage) with high weights; Notable Scholastic Attainment (achieved scholastic honors), Individual Sports, and Team Sports yielded low weights on this dimension (see Table 2). Regression analyses using the supplementary rating scales as dependent variables resulted in high beta weights for Dimension II on agentic and other directed scores (see Table 3). Dimension II differentiates competitive-status oriented accomplishments from those that are noncompetitive.

Subjects' weights for each dimension (ie. indications of individual differences in the importance of the dimensions) were obtained from the SINDSCAL analyses and were analyzed using discriminant analysis. These analyses revealed no differences due to the raters' sex, nor were there any effects due to the order of presentation of the stimuli.

Discussion

The results of this study provide useful information concerning the types of accomplishments attempted by people, and about dimensions that can be used to describe these accomplishments. The results reported here suggest striking similarity to the task vs. social dimension outlined by

Stein and Bailey (1973), and the inner vs. other directed distinction developed by Kipnis (1974). Stein and Bailey (as well as Bakan, 1966) proposed that women's and men's achievement strivings differ in the extent to which they approach social-affiliative vs. task-mastery types of goals. The results of this study suggest strong support for the importance of considering achievement domains using this typology. However, this study does not address the issue of sex differences in social-affiliative or task-mastery focused accomplishments.

Kipnis (1974) described sex differences in achievement motivation as stemming from differences in the use of inner directed and other directed standards. She argued that women's feelings of success are derived from meeting internalized standards of performance (inner directed), whereas men strive to excell in relation to their peers, or gain approval from their superiors(other directed). The competitive-status oriented dimension revealed in this study bears a strong resemblance to Kipnis' other directed dimension.

A taxonomy of achievement activities could be extremely useful to researchers interested in individual differences in achievement motivation, sex, and sex role related differences in accomplishments (cf. Stein & Bailey, 1973), and attributions for different types of accomplishments (cf. Travis et al, 1982). Future research concerning the dimensions of achievement experiences revealed in this study should focus on refinement of the dimensions, and on individual differences in the types of accomplishments people attempt.

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Table 1

Achievement Categories

Category	Brief Description
Spiritual Attainment	attained spiritual or religious fulfillment
Individual Sports	e.g., won a tennis match
Job Success	e.g., obtained a raise or promotion
Change of Career	substantial change in occupation
Acquired Possessions	e.g., bought a house or a car
Personal Growth	realized human potential
Social Functions	planned/implemented social event
Provided Emotional Support	was caring, nurturant
U.S. Citizenship	became a U.S. citizen
Children	became a parent
Interpersonal Relationships	e.g., improved family relationships
Returned to Work	e.g., employment after raising children
Improved Personal Appearance	e.g., lost weight
Job Attainment	e.g., found a job after a long search
Team Sports	e.g., played semi-pro baseball
Social Group Membership	e.g., being member of a Garden Club
Notable Scholastic Accomplishment	e.g., made the Dean's List
Manual Skills	demonstrated proficiency at skill tasks
Financial Security	e.g., acquired savings; made investments
Parenting	raised children
Divorce or Separation	divorced with minimal conflict
Prepared for Future with Education	returned to school to attain future goals
Marriage	had a happy marriage
Educational Attainment	obtained a diploma or license
Gained Independence	e.g., moved away from home

Table 2

Stimulus Weights

Category	Dimension I	Dimension II
Spiritual Attainment	-0.2015	0.1095
Individual Sports	-0.0505	-0.3570
Job Success	0.1965	-0.0955
Change of Career	0.2155	0.0765
Acquired Possessions	0.2155	-0.0420
Personal Growth	-0.0580	0.0005
Social Functions	-0.2405	-0.1490
Provided Emotional Support	-0.3515	0.2165
U.S. Citizenship	0.0060	-0.0915
Children	-0.1725	0.3650
Interpersonal Relationships	-0.2825	0.0585
Returned to Work	0.1805	0.0975
Improved Personal Appearance	-0.1215	-0.1240
Job Attainment	0.2200	-0.0240
Team Sports	-0.2255	-0.3670
Social Group Membership	-0.2370	-0.2290
Notable Scholastic Accomplishment	0.1645	-0.2315
Manual Skills	0.1500	-0.1990
Financial Security	0.2645	0.0990
Parenting	-0.1510	0.3650
Divorce or Separation	-0.0430	0.2315
Prepared for Future with Education	0.2475	-0.0150
Marriage	-0.1395	0.2900
Educational Attainment	0.2580	-0.0690
Gained Independence	0.1570	0.0820

Note: Stimulus weights listed are the average of the weights from separate analyses using two groups of raters. Dimension I was labelled a social-affiliative vs. agentic achievement dimension, and Dimension II was called a competitive/status oriented vs. noncompetitive achievement dimension.

Table 3

Regression analyses for interpretation of stimulus weights

	Beta Weights			
Rating Scale	Dimension I	Dimension II	F(2,22)	R
social-affiliative	-0.66**	-0.31*	10.95**	0.71
agentic	0.49**	-0.66**	31.35**	0.86
inner direct.	0.39*	-0.36	5.07*	0.56
other directed	0.32*	-0.67**	16.58**	0.77
masculine	0.46*	-0.40*	7.74*	0.64
feminine	-0.19	0.19	< 1	0.28

* $p < .05$ ** $p < .001$